



Vectorworks Marine, LLC

Product Description

Limited Production Tooling

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Limited Production Female (or Male) Moulds can be fabricated using Vectorworks Marine, LLC's five-axis routers for projects ranging from 2' to 200'. They are very similar in construction to the Basic Plugs, typically consisting of a steel sub-base upon which steel stations are placed and a CNC cut woodkit is lofted. The woodkit is sheeted and then a proprietary combination of Urethane foam, fiberglass, and higher density putty is routed twice to obtain the final shape. The machined surface provided is ready to be finished.



Base Steel and Stations



Interior View



Component of
Multi-Piece Mould

Pre-Requisites:

Prior to beginning work on Limited Production Tooling, it is first necessary to develop three dimensional computer model of the part surfaces. The customer typically provides this machine ready model 3-4 weeks in advance of the scheduled router slot so that the engineering for the sub-base and the woodkit can be completed and toolpaths developed and waiting for the slot under the router. VML can also provide an estimate to create the model.

Surface Finish:

After the router has machined the final surface of the putty, any residual machining scallops are removed. No additional finish sanding is standard, but if desired, VML can quote taking LPTs up to 400 grit..

Durability:

Limited Production Tooling provided by Vectorworks Marine, Inc. can be used to fabricate two first generation parts provided that the geometry is demouldable and that sufficient care is taken with the final finish work, surface preparation, and lamination of the part. Vectorworks can provide guidance in these regards.

Pricing:

Pricing is affected by a number of variables, not the least of which is the relative complexity of the surfaces to be tooled. Accordingly, pricing estimates will have to be provided on a project basis.

Non-Standard Options:

At the request of the customer, the surface finish can be improved to finishes ranging from a very cost effective 80 grit surface spray sealed with resin and suitable for demoulding post-painted parts, on through up to a 400 grit surface with various sanding primers. Additionally, split moulds, vacuum / blow ports, and removable inserts can be provided. Modeling, engineering support, and even prototyping and manufacturing of the parts can also be provided.